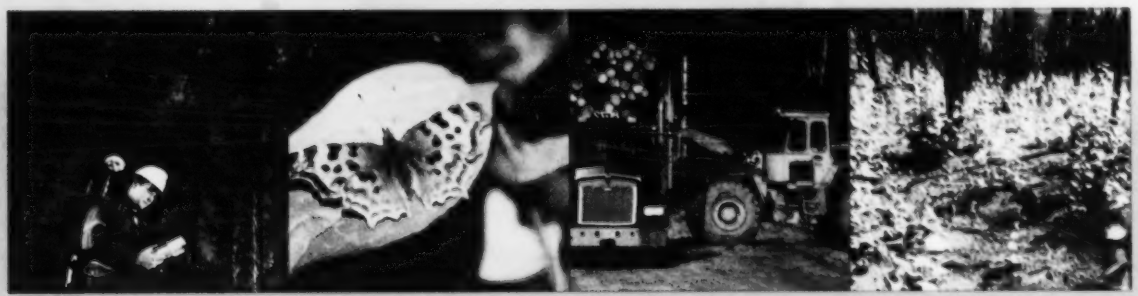
Report on Saskatchewan's Provincial Forests



March 2007

Government of Saskatchewan

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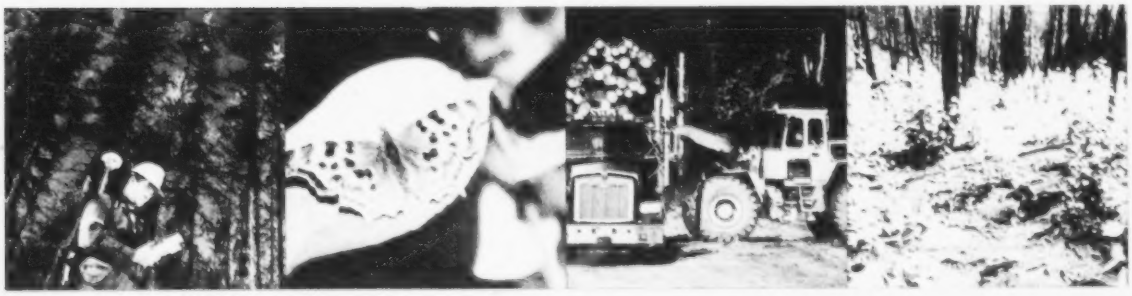

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Report on Saskatchewan's Provincial Forests

Executive Summary

Saskatchewan is world-renowned for vast areas of prairie farmland but the reality is that the northern half of the province is dominated by boreal forest ecosystems. Forests are a central part of the economy and landscape for many Saskatchewan communities. Our challenge is to make sure that future generations have healthy forest ecosystems capable of providing the numerous benefits that contribute to the unique quality of life we enjoy today.

The wealth of forest resources provides some of the greatest potential for growth in Saskatchewan. In spite of recent news about forest fires and mill shutdowns, the fact is that Saskatchewan forests will play an increasingly important role in the province's economy and way of life. With its potential for sustainable growth of the forest sector, Saskatchewan is unique among Canadian provinces.

Saskatchewan people use forest land for many, sometimes competing, purposes. However, consultations over many years have clearly shown that residents share some common beliefs about how forests should be managed. First, we must manage forests as ecosystems, to maintain their productivity and the diversity of life within them. As well, we must increase and diversify the economic value derived from the forest. Finally, people who care about and depend upon forests want to know about the issues so that they can effectively participate in the decision making process. For all these reasons, information on the present condition of the forest is vital.

The Forest Resources Management Act, which came into force in 1999, requires that, every ten years, a *state of provincial forests* document be submitted to the Minister of Environment, who will in turn provide it to the Legislative Assembly.

The following report is the first of three annual reports, building towards the full *Report on Saskatchewan's Provincial Forests* in 2009. It introduces how the state of provincial forests will be described and provides an overview of the ecosystems, people, laws, history and activities that together affect the state of our public forests. Subsequent reports will provide a progressively more detailed assessment of progress towards achieving sustainable forest management. The information in the reports will allow readers to assess progress for themselves, and to provide feedback about the information and its presentation.

In Part I, this report provides an introduction to the way in which the condition of provincial forests will be described and assessed in future reports. A framework of criteria, values and indicators that together give a picture of the current condition of public forests is provided.

This framework is based on the Canadian Council of Forest Ministers (CCFM) framework, developed after extensive consultation with stakeholders from across the country. The CCFM framework is based on six criteria describing forest values important to Canadians. They are:

1. Biological Diversity
2. Ecosystem Condition and Productivity
3. Soil and Water
4. Role in Global Ecological Cycles
5. Economic and Social Benefits
6. Society's Responsibility

Within these criteria, Saskatchewan Environment (SE) has selected 22 indicators most relevant to Saskatchewan. In 2007, SE will report on 11 of the indicators. Four will measure environmental trends, four will measure economic trends and three will deal with social values. Each successive year, more indicators will be added until 2009, when all 22 indicators will form the basis for the *Report on Saskatchewan's Provincial Forests*. For each indicator, an assessment will be made about the state of each, whether it is improving or deteriorating, and whether or not the available information is adequate.

In Part II, readers will find an overview of the ecosystems, people, industry and history that make provincial forests what they are today. The four Saskatchewan ecozones – Taiga Sheild, Boreal Sheild, Boreal Plain and the Prairie Ecozone – are discussed, with special attention to the Boreal Plain as the area where most forest-based human activities occur. Forests are important to many people, for many different reasons – traditional uses, recreation and commercial harvesting of forest products. The current industry is a mix of large and small players, all attempting to deal with the current challenges facing the sector. Saskatchewan Environment's Forest Service is responsible for ensuring that all forest use is sustainable and environmentally sound by enforcing the terms of applicable agreements and permits, within the framework provided by The Forest Resources Management Act and Regulations.

Part III provides information on a variety of forest activities and some key facts. Statistics on forest management activities, such as the area of forest harvested, burned or reforested, provide a picture of the extent and scope of both natural and human activity shaping the condition of the forest. This information dates back to 1999, the year The Forest Resources Management Act came into effect, and the beginning of the decade, which the *Report on Saskatchewan's Provincial Forests* will address in 2009. The information provided in Part III will be collected annually and will be used in future reports to help measure and interpret related indicators identified in Part I.

Part IV includes a list of reference material used in the preparation of this report. Also included are a glossary of terms and a list of acronyms referred to in the text.

Finally, in Part V, readers are encouraged to provide their comments on the information in this report and its presentation. A feedback form is provided, with contact information so readers can share their thoughts in the format that suits them best. Feedback from readers is valuable and will be used to make future reports better.

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Part I – Sustainable Forests: Assessing our Progress

Commitment to Sustainability

Forests are essential to the long-term well being of Saskatchewan's communities, economy and environment. Over half of Saskatchewan is forested, providing people with a multitude of benefits. As stewards of this precious resource, the province has accepted responsibility for keeping its forests in a healthy state and managing them in a sustainable manner.

The vision of sustainable forest management for the province was set out in Saskatchewan's Forest Management Policy Framework and reads as follows:

> *Our forests will be maintained in a healthy state, and the natural variety of life will be conserved;*
>
> *We will balance the need for protection with the opportunities for use, and resources will be harvested no faster than they can be renewed. Such use will contribute to the prosperity of Saskatchewan residents; and*
>
> *An informed public will take an active role in planning. A spirit of co-operation and creativity will prevail as we seek to find solutions to our common problems.*

A Framework for Saskatchewan

In order to report on and assess progress towards achieving the vision of sustainable forest management set out in the National Forest Strategy, the Canadian Council of Forest Ministers (CCFM) released a framework of criteria and indicators. The CCFM framework, developed after extensive consultation across the country with all types of stakeholders, offers a good starting point for the selection of sustainability indicators that are relevant to Saskatchewan.

The CCFM framework is based on six criteria that describe the forest values that Canadians want to enhance and sustain. They are:

1. Biological Diversity – the variability among living organisms and the ecosystems of which they are part;
2. Ecosystem Condition and Productivity – the stability, resilience and rates of biological production in forest ecosystems;
3. Soil and Water – the quantity and quality;
4. Role in Global Ecological Cycles – the impact of the forest and forest activities on global ecosystem functions;
5. Economic and Social Benefits – sustaining the flow of benefits from forests for current and future generations and;

6. Society's Responsibility – fair and effective resource management choices

The purpose of indicators is to measure or describe forest features that will provide an assessment of how well the desired values are being sustained. Table 2 sets out 22 indicators, which will be the basis for reporting on the state of Saskatchewan's provincial forests. They have been selected from the 46 indicators of the CCFM framework because they are relevant to Saskatchewan values, are measurable and data is available.

In Table 2, 11 of the indicators are shaded; these will be reported on in 2007. By 2009, all 22 indicators will be included in the report. In addition to the indicators, the provincial framework describes each criterion with statements defining the forest value of interest and the general objective for managing that value. Together, the criteria and indicators characterize the key components of sustainable forest management and provide a basis for assessing progress toward this goal.

For each indicator the state, trend and adequacy of information will be analyzed as follows:

- State – Do conditions identified by the indicator suggest good, fair or poor progress towards sustainable forest management?
- Trend – Can the state or condition of the indicator be characterized as improving, no change, uncertain or deteriorating?
- Adequacy of information – Can the information available for the indicator be assessed as adequate, inadequate or partial?

Table 2: Framework of Sustainable Forest Management Criteria and Indicators

The indicators shaded will have partial assessments completed and reported in 2007; all indicators will be reported in the Report on Saskatchewan's Provincial Forests to be released in 2009.

CRITERION	ELEMENT/ VALUE/ OBJECTIVE	SASKATCHEWAN PROVINCIAL INDICATOR
1 Biological Diversity The variability among living organisms and the ecosystems of which they are part	**Element 1.1** Ecosystem Diversity **Value**: Natural range of variation **Objective:** Conservation of the biological diversity of Saskatchewan's forests	**Indicator 1 Area of forest, by type and age class, and wetlands in each ecozone (CCFM 1.1.1)**
		Indicator 2 Area of forest, by type and age class, wetlands in protected areas in each ecozone (CCFM 1.1.2)
	Element 1.2 Species Diversity **Value:** Quantity and quality of forest habitat **Objective:** Maintain habitat for identified forest dwelling species	**Indicator 3 The status of forest associated species at risk (CCFM 1.2.1)**
		Indicator 4 Report on songbird trends associated with the provincial forest effects monitoring program
	Element 1.3 Genetic Diversity **Value:** Natural genetic diversity **Objective:** No loss of genetic diversity caused by forest management activities	**Indicator 5 Report on the current status of genetic conservation for native commercial tree species**
2 Ecosystem Condition and Productivity The stability, resilience and rates of biological production in forest ecosystems	**Element 2.1** The stability, resilience and rates of biological production in forest ecosystems **Value:** Natural ecosystem processes **Objective:** Maintain the stability, resilience and rates of	**Indicator 6 Additions and deletions of forest area, by type (CCFM 2.2)**
		Indicator 7 Area of forest disturbed by fire, insects, disease and timber harvest (CCFM 2.3)

	biological production in forest ecosystems	**Indicator 8 Proportion of timber harvest area successfully regenerated (CCFM 2.5)**
3 Soil and Water The quantity and quality of soil and water	**Element 3.1** Soil Disturbance **Value:** No loss of quantity and quality of soil **Objective:** Maintain and/or enhance the quantity and quality of soil	**Indicator 9 Report on the soil disturbance monitoring trends associated with the provincial forest effects monitoring program**
	Element 3.2 Water Quality **Value:** No loss of quantity and quality of water **Objective:** Maintain and/or enhance the quantity and quality of water	**Indicator 10 Report on the aquatic habitat change study trends associated with the provincial forest effects monitoring program**
4 Role in Global Ecological Cycles The impact of the forest and forest activities on global ecosystem functions	**Element 4.1** Carbon Cycle **Value:** Productive land base **Objective:** Mitigate the impact of the forest and forest activities on the productive land base	**Indicator 11 Net change in forest ecosystem carbon (CCFM 4.1.1)**
5 Economic and Social Benefits Sustaining the flow of benefits from forests for current and future generations	**Element 5.1** Economic Benefits **Value:** Sustainable economic benefits over the long-term **Objective**: Maximize the economic benefits derived from the forest without compromising the integrity of the forest ecosystem	**Indicator 12 Contribution of timber products to the gross domestic product (CCFM 5.1.1)**
		Indicator 13 Contribution of non-timber forest products and forest-based services to the gross domestic product (CCFM 5.1.4)
		Indicator 14 Forest sector employment trends (CCFM 5.3.5)

	Element 5.2 Distribution of Benefits **Value:** Fair distribution of benefits **Objective:** Maximize the distribution of benefits derived from the forest without compromising the integrity of the forest ecosystem	**Indicator 15 Forest area by tenure type (CCFM 5.2.1)**
	Element 5.3 Sustainability of Benefits **Value:** No loss of benefits **Objective:** Maintain or enhance the sustainability of benefits derived from the forest without compromising the integrity of the forest ecosystem	**Indicator 16 Annual harvest of timber relative to the level of harvest deemed to be sustainable (CCFM 5.3.1)**
6 Society's Responsibility Fair and effective resource management choices	**Element 6.1** Aboriginal and Treaty Rights **Value:** Respect for Aboriginal and Treaty Rights **Objective:** To ensure Aboriginal and Treaty Rights are respected within the context of planning and implementing forest activities	**Indicator 17 Extent of consultation with Aboriginals in forest management planning and in the development of polices and legislation related to forest management (CCFM 6.1.1)**
		Indicator 18 Trends in Aboriginal forestry partnership

	Element 6.2 Aboriginal Traditional Land Use and Forest-Based Ecological Knowledge **Value**: Protection of Aboriginal traditional land use and forest-based ecological knowledge **Objective:** To incorporate Aboriginal traditional land use and knowledge in planning	**Indicator 19 Area of forested Crown land with traditional land use studies (CCFM 6.2.1)**
	Element 6.3 Forest Community Well-Being and Resilience **Value:** Sustainable forest communities **Objective:** To ensure local communities are involved in the forest management activities	See 5.1 Element Indicators
	Element 6.4 Fair and Effective Decision Making **Value:** Involvement of stakeholders in forest planning **Objective:** Maximize the involvement of stakeholders in forest planning	**Indicator 20 Proportion of participants who are satisfied with public involvement processes in forest management in Saskatchewan (CCFM 6.4.1)**
	Element 6.5 Informed Decision Making **Value:** Information about and for forest management should be publicly available **Objective:** Ensure that the available information for forest management is current and available	**Indicator 21 Rate of compliance with sustainable forest management laws and regulations (CCFM 6.4.2)** **Indicator 22 Investment in forest research, timber products industry research and development and education (CCFM 6.5.3)**

***This framework is considered DRAFT; changes may be made, based on reader or SE staff feedback, before the official publication of the Report on Saskatchewan's Provincial Forests in 2009**

Part II – Boreal Forest Ecosystems of Saskatchewan: An Overview

Introduction

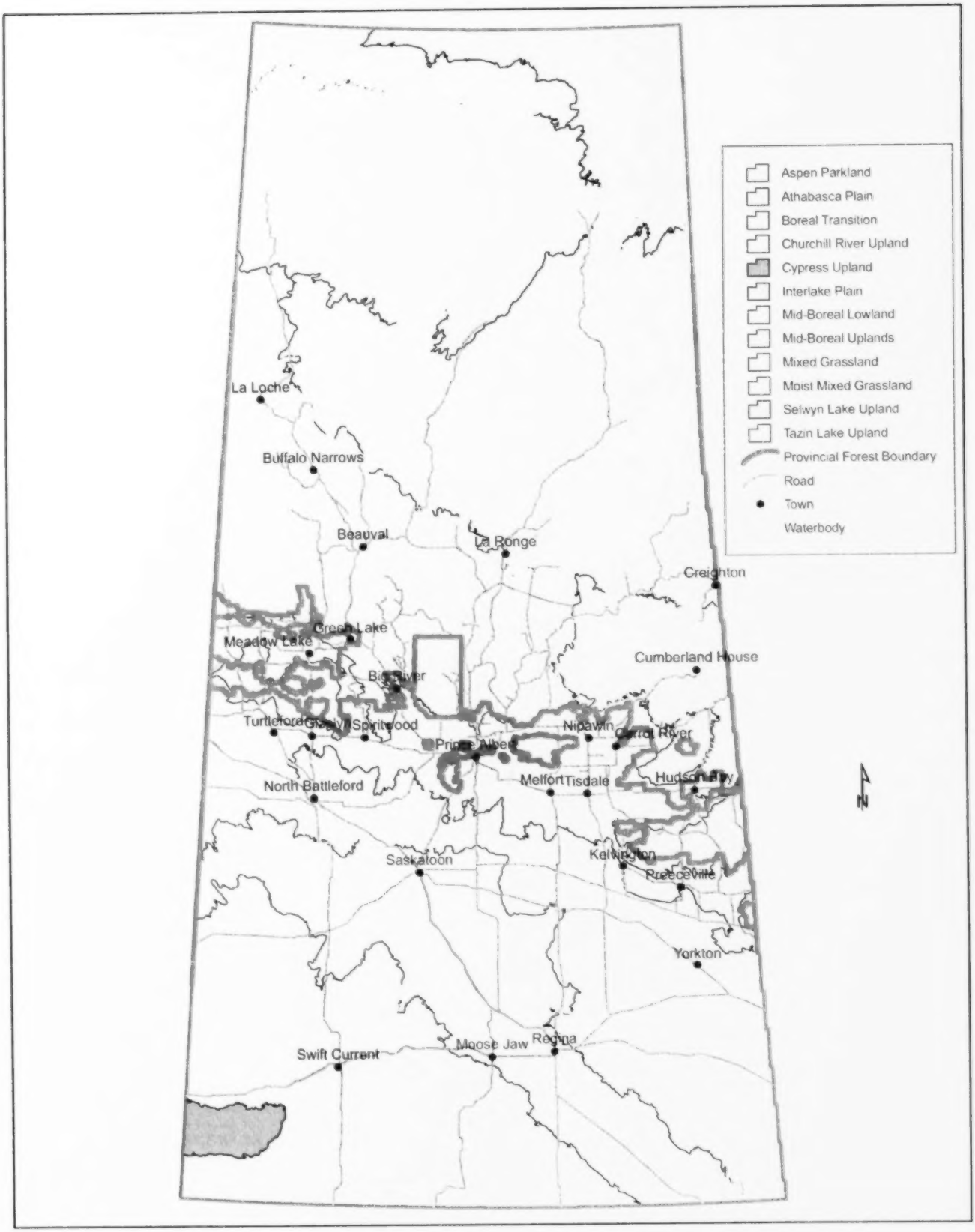
Saskatchewan is more than half forest. This fact comes as a surprise to most people familiar with the more heavily populated and traveled southern farmlands and grasslands. The change from grassland to forest, and the diversity of forest across the northern half of the province, is caused by both climate and geology.

Transition: Grassland to Forest

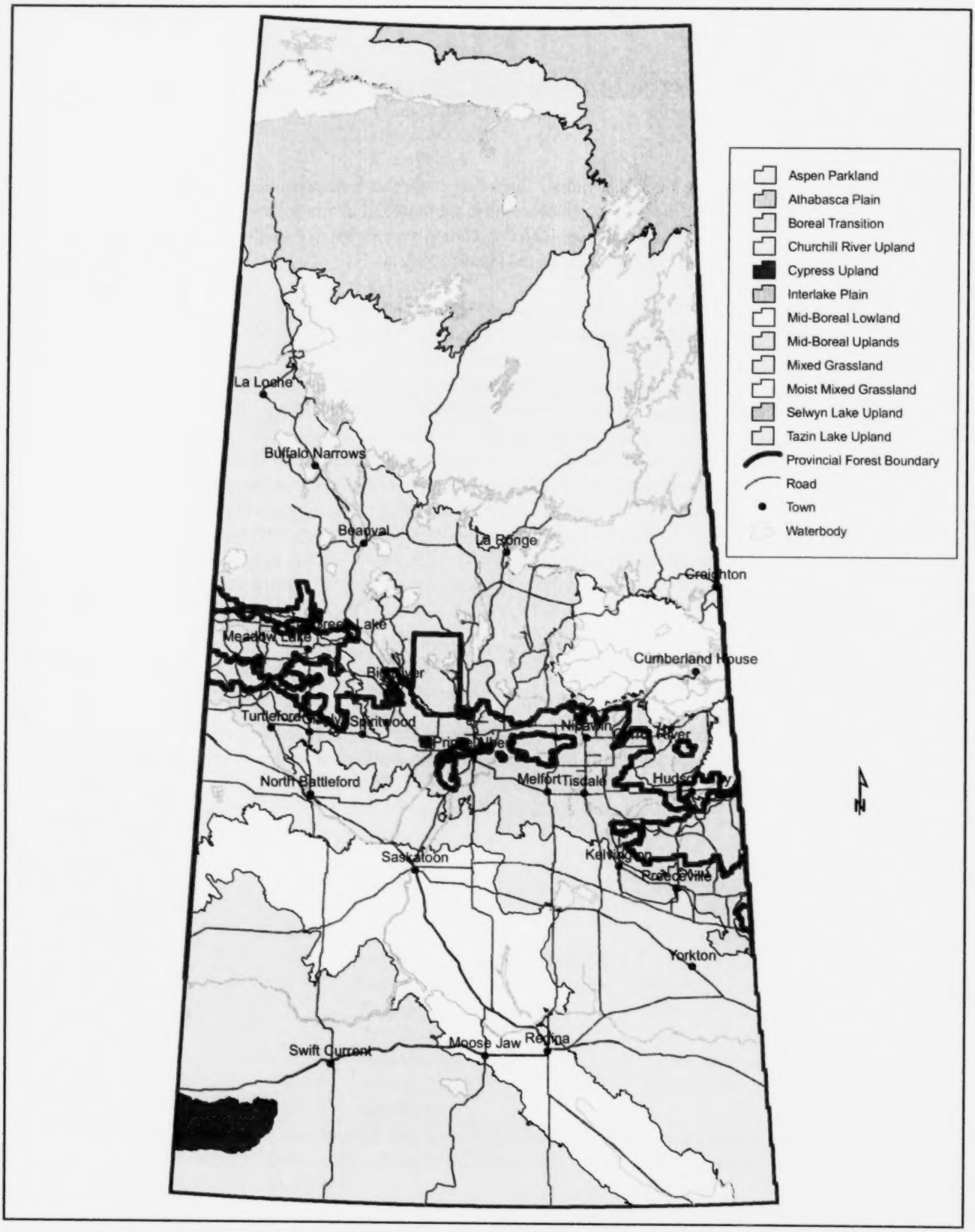
Just south of the communities of Meadow Lake, Prince Albert, and Hudson Bay, the North American grassland gives way to the vast northern (boreal) forest that blankets over half of our province and much of Canada. This change in vegetation is a response to a northward increase in precipitation and decrease in average air temperatures. Saskatchewan has recently been divided into four very broad ecosystems, called ecozones. The ecozones have, in turn, been subdivided into ecoregions (Padbury and Acton 1993) (Figure 1). The forest may also be described at much finer scales. The small-scale divisions of the forest are referred to as ecosites. At the ecosite level, the forest is described in terms of its tree cover, plant community composition and soil structure.

Saskatchewan's Forest Ecozones

In Saskatchewan's far north lies the rocky terrain of the Taiga Shield (Figure 2), with its expanses of lichen woodland and peatland vegetation dominated by black spruce. White birch is the only common broad-leaved deciduous tree in this ecozone.



MAP 1: Ecoregions of Saskatchewan and the approximate provincial forest boundary (in red).



MAP 1: Ecoregions of Saskatchewan and the approximate provincial forest boundary (in red).

Figure 2. Looking north from the tundra remnant at the summit of Arctic Butte, six kms east of Misaw Lake, SK. The dark trees are black spruce. The tundra lays 150 km north in Nunavut.

Further south is the bedrock-controlled Boreal Shield, with black spruce and jack pine (Figure 3) dominating the rocky uplands and scattered black spruce and peat moss in the wetlands (Figure 4). White birch and trembling aspen become more common with the warmer and moister climate.

Figure 3. Jack pine on a rocky ridge near Snare Lake, SK. Note the tree lichens on branches of pines and the carpet of reindeer lichen on the small boulders.

Figure 4. Small black spruce with cottongrass and Labrador tea in one of the innumerable bogs of the Boreal Shield. Note the jack pine forest on the higher uplands in the background.

The Boreal Plain ecozone begins where the Precambrian Shield ends and the land becomes mantled with deeper glacial deposits (mixtures of clay, sand and stones). The warmer climate and better soils support a more diverse and productive mix of pure conifer forests and extensive mixedwood forests consisting of white spruce, jack pine or black spruce mixed with trembling aspen, balsam poplar or white birch. Once again, wetlands (bogs and fens) dominate almost half of the land base. Forests give way to grasslands where the Boreal Plain meets the Prairie ecozone. Here, the amount of water used by the plant community and evaporated from the soil surface (potential evapotranspiration) exceeds the annual precipitation.

Most timber of commercial value in Saskatchewan lies in the Boreal Plain ecozone. Outdoor recreation activities are concentrated in the cottage country along the southern edge of the Midboreal Upland Ecoregion. The white spruce, typical of good growing sites, reach to 30 m in height and often occur in mixture with trembling aspen, balsam poplar or white birch (Figure 5). This is the Mixedwood Forest of Saskatchewan. The superior tree growth is supported by richer soils (more clay and silt) that have better moisture-holding capacity than the sandy soils of the Shield.

Expansive stands of trembling aspen characterize the southern part of the Midboreal Upland Ecoregion and the Transition Ecoregion at the southern edge of the ecozone (Figure 6). Balsam poplar and white birch stands are found in riparian areas (Figure 7). The dominance of black spruce and tamarack is restricted to low-lying bogs and fens and concentrated in the Midboreal Lowland Ecoregion. The continuous forest of Boreal Plain grades into the aspen parkland as the grassland climates of the south become dominant (Figure 8).

Figure 5. A typical mixedwood stand with white spruce (dark olive green) growing with trembling aspen and white birch (Wapawekka Hills)

Figure 6. A 25 m tall pure trembling aspen stand on heavy clay soil in Duck Mountain Provincial Park

Figure 7. A rich white birch – ostrich fern stand occupies the riparian zone of a small lake in Duck Mountain Provincial Park

Figure 8. Aspen parkland adjacent to the South Saskatchewan River

Many People, Many Values

Aboriginal people have been using forests in what is now Saskatchewan, for thousands of years. First Nations and Métis people depended on forests for food, medicine, building materials, ceremonial sites and many other uses. This first-hand experience of the value of forests for daily living is important traditional knowledge that has to play a part in making modern-day decisions about forest use.

Beginning in the 1870s, Canada entered into treaties with First Nations people. The treaties, in concert with the Canadian Constitution, protect Aboriginal people's right to hunt and fish for food. The Saskatchewan government must act with honour and integrity in its dealings with First Nations and Métis people. This, in turn, implies a duty to consult and, if appropriate, accommodate if the actions contemplated by government could adversely affect First Nation or Métis rights. (The Government of Saskatchewan Guidelines for Consultation with First Nation and Métis People: A Guide for Decision Makers)

As well, many people choose to fish, picnic, ski, snowmobile, hike and holiday in Saskatchewan's provincial parks and recreation sites because they are attracted to the forest environment. For many visitors, from within and outside of the province, their park visit is their main experience of forests. In 2003, an estimated 2.5 million people visited Saskatchewan provincial parks and recreation sites.

There are 650 kms of designated snowmobile trails in Saskatchewan's provincial parks. They are located in Duck Mountain, Greenwater Lake, Moose Mountain, Narrow Hills and Meadow Lake provincial parks, and in Emma Lake Recreation Site. There are also groomed trails in the provincial forest outside of the parks.

Enjoying cabin life on Crown land is another form of recreation. More than 3,100 cabin leases and permits have been issued, excluding recreational subdivisions such as at White Swan and Weyakwin lakes.

Saskatchewan's many lakes and streams attract anglers pursuing fish for food or trophies. Types of fish common to the waterways of Saskatchewan include walleye, perch, artic grayling, lake trout, northern pike and whitefish. In 2004-2005, more than 160,000 licensed anglers fished in Saskatchewan, as well as an estimated 63,000 children under the age of 16 who do not require a licence. Approximately 36 per cent of the angling activity took place in the central and northern fisheries management zones, coincident with the provincial forests. Recreational fishing is an important economic activity, spurring purchases of equipment, food, accommodation and fuel.

Most of Saskatchewan's commercial net fishing activity occurs on lakes within the provincial forests. In 2003/04, approximately 650 commercial fishers were active in this industry.

Currently, there are 391 angling outfitters in the province. The outfitting industry utilizes approximately 1,000 lakes, with the majority located in the provincial forest.

Saskatchewan's forest environment is home to many big game species that attract hunters from Saskatchewan and beyond. More than 178,000 hunting licenses were sold in Saskatchewan in 2004/05. There are currently approximately 400 licensed hunting outfitters in the province.

There were over 3,000 fur trappers licensed in the province in 2003/04. The province is divided into two management areas for trapping: the Northern Fur Conservation Block and the South Saskatchewan Open Trapping Area. The Northern Fur Conservation Block covers most of the forested area of northern Saskatchewan. Animals trapped in Saskatchewan include beaver, coyote, fisher, lynx, marten, muskrat, raccoon and weasel.

Many people harvest non-timber forest products for their own use or for commercial gain. Non-timber forest products are any forest vegetation, alive or dead, from land or water, including trees (other than the trunk), shrubs, herbs, grasses, mosses, fungi and any parts or components of that vegetation. This includes a wide variety of products that can be grouped into the following categories:

a) food - such as mushrooms, berries, fiddleheads, wild rice and tree sap;
b) craft material - such as willow whips, birch bark, cones and boughs;
c) plants - for culinary, medicinal and pharmaceutical uses;
d) essential oils - for a variety of aromatic products

The commercial value of some food products has become significant. Some years, more than one million dollars is paid out to mushroom pickers for morels, chanterelles and pine mushrooms. Each year, 25,000 pounds of wild blueberries are picked for local markets. There are more than 250 wild rice producers. These products have always been and continue to be an important resource for First Nations and Métis people.

Many other types of commercial, industrial, institutional and agricultural activities take place in provincial forests. More than 480 leases have been issued for activities as diverse as church camps and buffalo ranches.

Saskatchewan's Forest Industry: A Brief History

Commercial use of the Dominion Districts, which we know as Saskatchewan today, began in 1872 when The Dominion Lands Act designated Saskatchewan's first commercial forest zones and allowed for the commercial use of forest areas. (Saskatchewan, 1974)

Due to immigration policy, the completion of the first cross-country railroad in 1885 and subsequent railways going north and south, the region's forest began to be used to support development on a large scale. The settlers began clearing the land for agriculture and used the trees to build houses and furniture and for fuel wood. (Saskatchewan, 1959)

The Saskatchewan forest industry got started with a sawmill established in Prince Albert in 1877. Softwood logs were taken out of bush camps along the Spruce (Little Red) River, which was used to float the logs down to Prince Albert. Later, camps at Sturgeon Lake and Anglin Lake supplied Prince Albert with logs via the Sturgeon River, the Spruce River and the North Saskatchewan River. (University of Saskatchewan)

Although tree cutting regulations and fire protection measures were introduced under The Dominion Lands Act, wasteful and deleterious practices were common. Furthermore, forest fires associated with land clearing were particularly widespread in those years. (Saskatchewan, 1959)

By the early 1900s, logging was a part of the northern lifestyle. Several sawmills were operating in the region at places like Big River, MacDowall, Crooked River and Prince Albert. During the winter, men in logging camps cut and piled logs on sleighs so that horses and oxen could pull them on ice roads to the river, directly to the mill or to railways.

In 1911, the sawmill at Big River became the largest in the British Commonwealth. It could produce one million board feet of lumber per day. The easily accessible softwood timber was rapidly over cut. This, coupled with a reduced demand for lumber after peak settlement activity, caused many large sawmills to shut down. Contributing to the shut downs were the massive forest fires of 1919. (Saskatchewan Forestry Association)

In 1905, the Province of Saskatchewan was created out of the Dominion Districts of Athabaska, Saskatchewan and Assiniboia by an act of Parliament. However, it was not until 1930 that control of the province's natural resources was transferred from federal to provincial administration. The first provincial Forest Act was established in 1931. (Saskatchewan, 1974)

By 1933, portable sawmills were being used to cut softwood timber on small, scattered tracts across Saskatchewan. Heavy production took place during the emergency years of Word War II.

In 1945, re-thinking of forest policy became critical, because of the heavy cutting and serious forest loss to fire. A Royal Commission was appointed to inquire into the entire field of forestry, presenting its report in 1947. Recommendations included proposed improvements to the forest protection system, a comprehensive forest inventory and more intensive silvicultural practices. These and other recommendations formed the basis of Saskatchewan's forest policy in succeeding years. (Saskatchewan, 1959)

In 1945, the provincial government created the Saskatchewan Forest Products Company, which was intended to achieve maximum utilization of the province's forest resources for the benefit of all the people of Saskatchewan. The corporation was split into two divisions: the Saskatchewan Timber Board and Saskatchewan Wood Enterprises.

The Saskatchewan Timber Board acted as a single agency that would produce and market publicly owned timber from Crown lands. Prior to the creation of the board, timber was sold to private operators who had control over the marketing of the product. Establishment of the board also meant controlled cutting in every region of the province; sawmills provided jobs in areas of the province where employment was needed. The board implemented forms of timber conservation and effectively coordinated the province's timber industry. (Saskatchewan, 2002)

Saskatchewan Wood Enterprises was quite small in comparison to the timber board but it coincided with several other initiatives already underway. Its primary purpose was to utilize salvage timber that would be of little or no value to wholesale buyers. (Saskatchewan, 2002)

Soon after, in 1947, the first forest inventory was undertaken and completed in 1956. (Saskatchewan, 1959) During the 1960s, activity in the Saskatchewan forest industry increased; large industry was enticed to the province to harvest the under-utilized forest resource. The Prince Albert Pulp Mill opened in 1968.

Up until 1969, reforestation was carried out almost solely by the provincial government. With the signing of Forest Management Licence Agreements, which gave tenure to forest companies, industry took on responsibilities for renewing the areas they harvested.

Increased activity in the forest industry brought further development of the northern areas of the province. Improved roads for forestry made the north accessible for mining and the tourist industry.

In 1988, a paper mill was added to the pulp mill in Prince Albert and in 1990 construction began on a pulp mill in Meadow Lake.

Table 3 lists the largest forest products mills currently operating in the province that rely heavily on the provincial forests for their raw material.

The Forest Resources Management Act and Regulations were proclaimed in 1999 and replaced the Forest Act. The new Act and Regulations provide a results-based framework for how forests are to be managed in Saskatchewan, going into the 21st century.

Table 3: Current Large Operational Timber Processing Plants Relying on Provincial Forests (as of April 2006)

Mill Type	Ownership	Location	Production Capacity	Products
Oriented Strand Board (OSB)	Weyerhaeuser	Hudson Bay	520 million square feet on ⅜" basis (annual rated capacity)	OSB panels and web stock. Capability to produce products ranging from ¼" to 1⅜" thickness and from 3'x 6' to 9'x 24' in size. Capability also to produce tongue-and-groove sanded flooring.
Plywood	Weyerhaeuser	Hudson Bay	110 million square feet on ⅜" basis (annual rated capacity)	Softwood plywood. Capability to produce 4'x 8' panels ranging in thickness from ⅜" to 1⅛".
Sawmill	Weyerhaeuser	Carrot River	80 million board feet (annual rated capacity)	SPF studs in 2x4 and 2"x 6", 8-foot lengths.
Sawmill	Weyerhaeuser	Big River	230 million board feet (annual rated capacity) *Not currently in operation*	Dimensional SPF lumber. Product ranges from 2"x 4" to 2"x 12", in lengths from 8 to 20 feet.
Pulp & Paper Mill	Weyerhaeuser	Prince Albert	Paper 280,000 tonnes (annual rated capacity) Pulp – 130,000 tonnes (annual rated capacity) *Mills not currently in operation*	Paper – uncoated freesheet in various grades for business and printing uses Pulp – paper grade northern bleached softwood kraft (NBSK) or bleached hardwood kraft (BHKP)
Sawmill	Wapawekka Lumber LP (Kitsaki Management Ltd, Peter Ballantyne Cree Nation, Montreal Lake Cree Nation, Weyerhaeuser)	Prince Albert	70 million board feet (annual rated capacity) *Not currently in operation*	Dimensional SPF lumber. Product ranges from 2"x 4" to 2"x 6", in lengths from 8 to 16 feet.
Sawmill/	L&M Wood	Glaslyn	15 million board feet	Dimensional lumber,

Wood Treatment	Products (1985) Ltd.		(annual rated capacity)	SP treated and untreated, various sizes and lengths
OSB	Meadowlake OSB LP (Tolko Industries Ltd., North West Community Holdings Ltd., Meadow Lake Tribal Council Resource Development Inc., CIC OSB Products Ltd.)	Meadow Lake	600 million square feet on ⅜" basis (annual rated capacity)	Quality engineered wood panels, precision cut to customer specs 12'x 24' press size
Sawmill	Nor Sask Forest Products Inc. (Meadow Lake Tribal Council)	Meadow Lake	110 million board feet (annual rated capacity)	Dimensional lumber, SP, various sizes and lengths 1"x 4", 2"x 3", 2"x 4", 2"x 6"
Pulp Mill	Millar Western Pulp Mill	Meadow Lake	Two-lines of bleached – chemo – thermal – mechanical pulp 325,000 air dry metric tonnes annually	Pulp from aspen; 17 grades of pulp, printing & writing paper grade bleached chemi-thermo-mechanical pulp (BCTMP)
Sawmill	Zelensky Bros. Ltd	La Ronge	18 million board feet (annual rated capacity)	Dimensional lumber, various sizes and lengths 1X3 to 2X12, timbers 3X3 to 22X22, building logs, moulded products
Sawmill	Carrier Forest Products	Prince Albert	65 million board feet (annual rated capacity)	Dimensional lumber 2x3 to 2x6

In addition to the large companies that focus on exports to other provinces and countries, there are approximately 150 independent forest companies operating in Saskatchewan, approximately 100 of which require a licence to process Crown timber. Three-quarters of all the independent facilities manufacture rough cut aspen and spruce lumber. Most of the lumber is used to construct homes, barns, shelters, fencing and outbuildings in rural Saskatchewan. Some lumber goes to pallet plants, hobbyists and regional lumberyards. Other types of primary products include firewood, corral rails and wood stock for furniture making.

The remainder is converted to higher value products such as moldings, flooring, rustic siding and other planed wood products. Companies focusing on value-added products increase the number of people employed per unit of timber cut, often in communities away from larger centers in the province.

Four treated fencepost plants supply the agriculture and ranching industries. They manufacture over five million fence posts annually, some of which are sold in other provinces and the United States.

The highest return per cubic metre of timber is for log homes. Five companies build log homes for the cottage market, as well as for export. A cubic metre of wood used in a log home can generate as much as $3,000.

Saskatchewan Environment: Committed to Sustainability

The Forest Service Branch is one of four branches that make up the Lands and Forest Division of Saskatchewan Environment (SE). The branch derives its responsibilities and authority mainly from The Forest Resources Management Act and Regulations. This Act allows the government to implement a legal framework for sustainable management of Saskatchewan's forest resources.

Saskatchewan Environment's mandate is "to protect and manage Saskatchewan's environmental and natural resources to maintain a high level of environmental quality, ensure sustainable development, and provide economic and social benefits for present and future generations." (Government of Saskatchewan (GOS), 2005)

Saskatchewan Environment's vision is to maintain "a high quality environment and healthy ecosystems in perpetuity, which sustain social, health and economic well-being for Saskatchewan citizens". (GOS, 2005)

The Forest Service Branch and those conducting forestry-related activities in the Compliance and Field Service Branch and the Environmental Assessment Branch are working collectively under an Environmental Management System (EMS) to make sure that SE's forestry program is effective and accountable. The EMS requires that the three branches monitor their own conformance with the requirements of the EMS.

The SE forestry program is certified to the ISO14001:2004 international standard of Environmental Management Systems. The scope of the EMS deals with the Crown land designated as provincial forests by The Forest Resources Management Act and Regulations, and also includes forest activities conducted on other Crown resource lands (like forested vacant Crown lands) and other lands where SE undertakes insect and disease management.

Saskatchewan Environment is committed to minimizing environmental impacts of its own activities in forest ecosystems, striving for continual improvement and regularly setting and reviewing forestry program objectives as directed by EMS Policy. The EMS enables SE to demonstrate that the province's forest ecosystems are being managed in an accountable, efficient and effective manner.

Saskatchewan Environment's forestry program was certified in October 2003 by an independent third party accredited auditing firm. In order to maintain certification, independent and internal systems audits are conducted regularly.

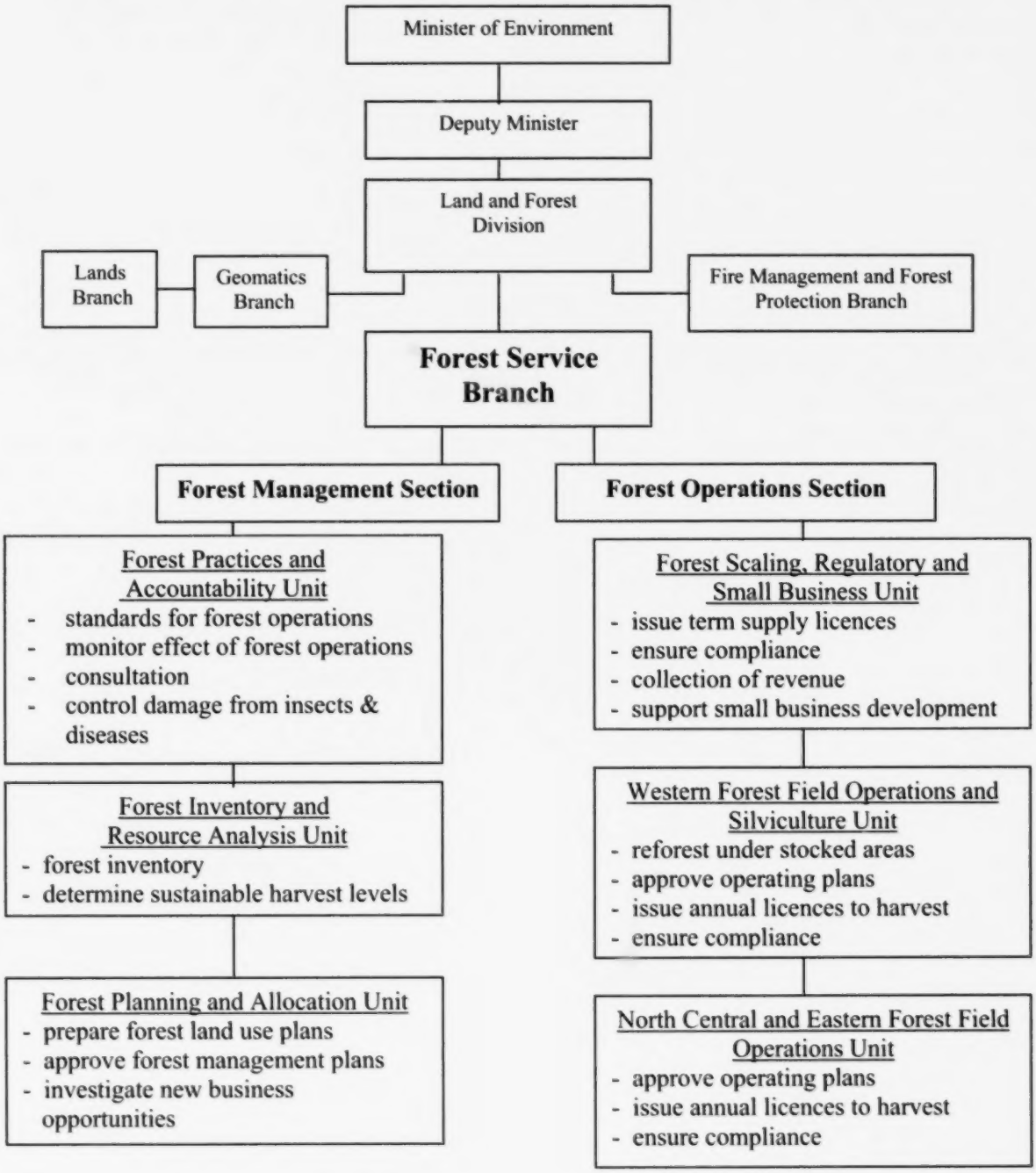
Signed by the department's Deputy Minister in June 2002, the SE Forest Environmental Policy states:

> Our role is to achieve a vision of perpetuating a high quality environment and healthy forest ecosystems sustaining the social and economic well being of Saskatchewan people by administration of The Forest Resources Management Act and other related acts. We will:
>
> - Minimize undesired environmental impacts and prevent pollution to forest ecosystems from activities authorized and/or regulated by us;
> - Comply with relevant environmental legislation and other requirements to which Saskatchewan Environment subscribes;
> - Maintain framework for periodically setting and reviewing our environmental objectives and targets;
> - Strive to improve environmental performance through continual improvement of our Environmental Management System
> - Document and communicate the purpose and content of this policy to Saskatchewan Environment employees
> - Ensure the environmental policy is available to the people of Saskatchewan and other interested parties.

Forest Service Branch Organization:

The Forest Service Branch is composed of two sections, Forest Management and Forest Operations, each containing three units. Forest Operations includes staff in Meadow Lake, La Ronge, Creighton, Hudson Bay and Big River, as well as the Prince Albert headquarters. The key functions performed by each unit are listed in Figure 1.

Figure 1: Forest Service Branch Organization - Units and Key Functions


Minister of Environment
Deputy Minister
Land and Forest Division
Lands Branch
Geomatics Branch
Fire Management and Forest Protection Branch
Forest Service Branch
Forest Management Section
Forest Operations Section
Forest Practices and Accountability Unit
- standards for forest operations
- monitor effect of forest operations
- consultation
- control damage from insects & diseases
Forest Inventory and Resource Analysis Unit
- forest inventory
- determine sustainable harvest levels
Forest Planning and Allocation Unit
- prepare forest land use plans
- approve forest management plans
- investigate new business opportunities
Forest Scaling, Regulatory and Small Business Unit
- issue term supply licences
- ensure compliance
- collection of revenue
- support small business development
Western Forest Field Operations and Silviculture Unit
- reforest under stocked areas
- approve operating plans
- issue annual licences to harvest
- ensure compliance
North Central and Eastern Forest Field Operations Unit
- approve operating plans
- issue annual licences to harvest
- ensure compliance

Part III – Forest Activity Statistics 1999/00 to 2004/05

Timber Allocation Statistics

Current Regulated Annual Allowable Cut by Forest Management Agreement (FMA) Area

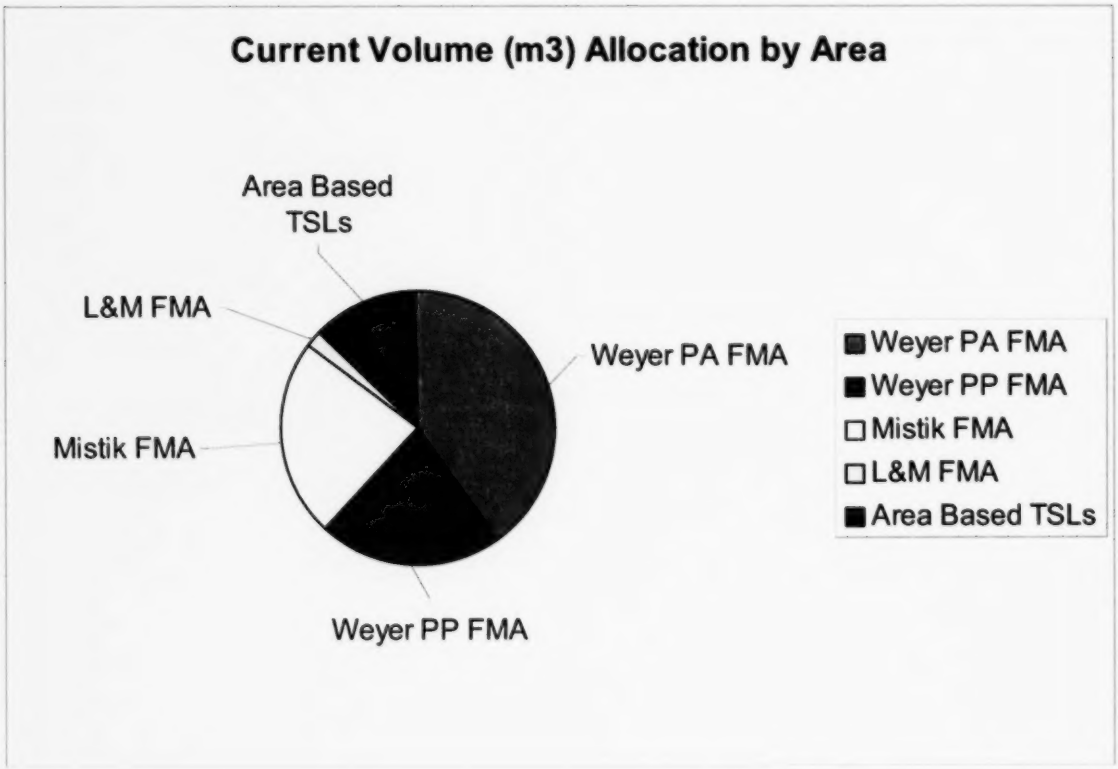
FMA	Operations	Allocation Term	Wood Type	Volume (m3)
Weyerhaeuser Prince Albert (PA) FMA	Weyerhaeuser Company	2000-2010	Softwood	1,846,000
	Weyerhaeuser Company	2000-2010	Hardwood	936,000
	Third Party Allocation	2000-2010	Softwood	99,000
	Third Party Allocation	2000-2010	Hardwood	12,000
Total PA FMA				**2,878,000**
Weyerhaeuser Pasquia-Porcupine (PP) FMA	Weyerhaeuser Company	1999-2018	Softwood	486,800
	Weyerhaeuser Company	2004-2008	Hardwood	911,205
	Third Party Allocation	1999-2018	Softwood	25,700
	Third Party Allocation	2004-2008	Hardwood	50,000
Total PP FMA				**1,473,705**
Mistik FMA (includes Peter Pond MU & OSB Lands))	Mistik Management Ltd.	2002-2007	Softwood	579,500
	Mistik Management Ltd.	2002-2007	Hardwood	799,890
	Mistik FMA Third Party Allocation	2002-2007	Softwood	22,500
	Mistik FMA Third Party Allocation	2002-2007	Hardwood	4,800
	Meadow Lake OSB (OSB Lands)	2002-2007	Softwood	89,500
	Meadow Lake OSB (OSB Lands)	2002-2007	Hardwood	159,110
	OSB Land Third Party Allocations	2002-2007	Softwood	1,500
	OSB Land Third Party Allocations	2002-2007	Hardwood	1,200
Total Mistik FMA				**1,658,000**
L&M FMA	L&M Wood Products (1985) Ltd	2000-2011	Softwood	119,000
	L&M Wood Products (1985) Ltd	2000-2011	Hardwood	28,000
	Third Party Allocation	2000-2011	Softwood	1,000
	Third Party Allocation	2000-2011	Hardwood	2,000
Total L&M FMA				**150,000**
Provincial FMA Total		**Current**	**Softwood**	**3,255,500**
Provincial FMA Total		**Current**	**Hardwood**	**2,904,205**
Provincial FMA Grand Total		**Current**	**Total**	**6,159,705**

Source: FMA Agreements, Agreement Amendments or Authorization Letter

Approved Annual Cut for Area Based Term Supply Licences (TSL)*

Operating Year	Area Based TSLs (m3)	
	Hardwood	Softwood
1999/00	-	-
2000/01	-	-
2001/02	-	-
2002/03	100,400	251,000
2003/04	232,000	472,000
2004/05	287,000	629,000
2005/06	287,000	629,000

*North West Communities Wood Products Ltd TSL (Started 2002)
Kitsaki-Zelensky Partnership TSL – La Ronge First Nations (Started 2003)
Mee-Toos Forest Products Ltd. TSL (Started 2005)



Timber Harvesting Statistics

FMA Licenses in the Provincial Forest with Actual Green Harvest Volumes and Areas

Year	**Mistik FMA** Mistik harvested volumes m3	**Mistik FMA** Mistik harvested areas HA	**L&M FMA** L&M harvested volumes m3	**L&M FMA** L&M harvested areas HA	***ML OSB Lands** harvested volumes m3	***ML OSB Lands** harvested areas HA	**Weyer. PA FMA** Weyer. harvested volumes m3	**Weyer.PA FMA** Weyer. harvested areas HA	**Weyer PP FMA** Weyer. harvested volumes m3	**Weyer. PP FMA** Weyer. harvested areas HA
*1999/00	1,022,991	7,315	162,631	673.3	-	-	1,233,657	7,185	1,171,683	5,161
*2000/01	1,286,932	8,279	129,825	490.0	-	-	1,541,525	9,465	891,382	5,167
*2001/02	1,054,234	6,876	28,167	538.4	-	-	1,319,372	8,086	1,460,268	5,635
*2002/03	1,062,077	7,923	139,752	850.8	-	-	1,700,713	10,359	921,533	5,712
*2003/04	1,205,459	6,461	115,259	854.8	70,407	795.6	1,731,502	9,362	1,114,049	6,712
*2004/05	986,828	7,313	121,614	702.6	47,111	563.0	2,297,816	11,790	1,195,273	6,848
*2005/06	979,358	n/a	138,787	n/a	49,541	n/a	1,905,833	n/a	1,285,741	n/a

*current to November 28, 2006, as reported on Revenue and Woodflow reports; these volumes are not yet verified; volumes are before final reconciliation process; area harvested statistics are from forest company operating plan summary reports; volume harvested information is from Forest Service scaling records

Forest Products Permits (FPP) Issued for Commercial Timber Harvest in the Provincial Forest

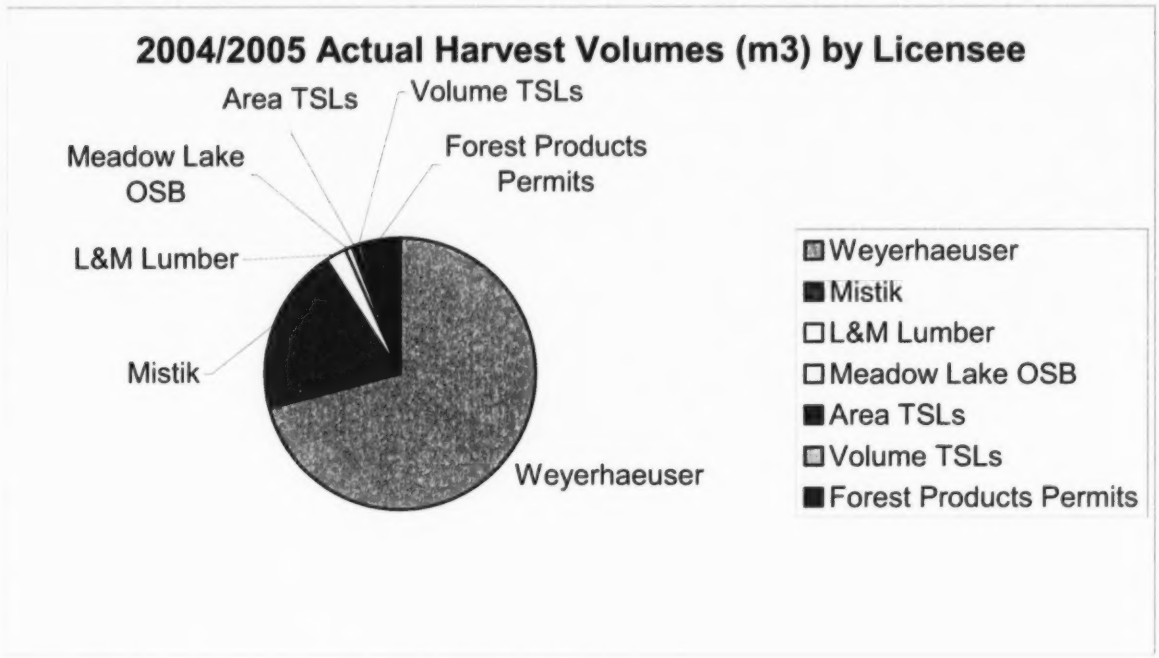
Year	*# FPP Issued	FPP Green harvested volumes m3	*#FPP Salvage Logging Issued	FPP Salvage harvested volumes m3
1999/00	167	541,022**	50	120,261
2000/01	106	312,388**	24	54,084
2001/02	116	268,966**	19	36,843
2002/03	122	236,319**	54	107,828
2003/04	115	175,091**	47	79,456
2004/05	85	236,646	27	53,697

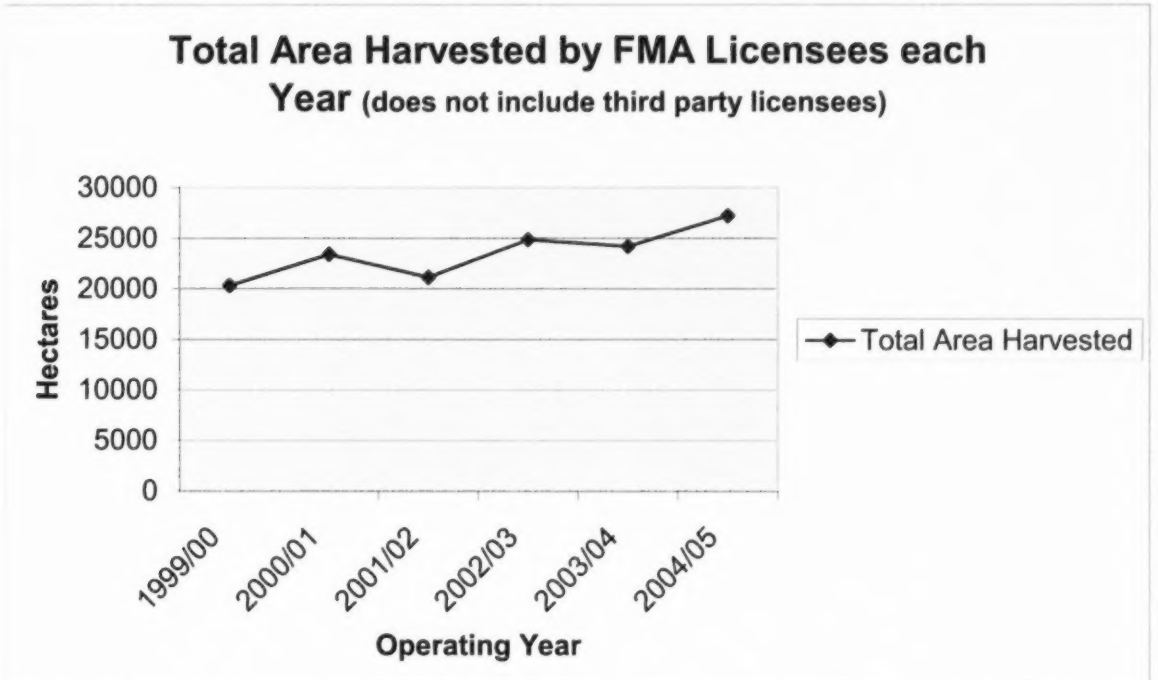
*does not include permits for landscape trees and Christmas trees
**includes timber harvested volumes from provincial parks which are not designated provincial forests

Timber Supply Licences Issued in the Provincial Forest:
Actual Harvest Volumes & Areas (excludes Provincial Park lands)

Year	# of Area-Based TSLs Active	*Area-Based TSLs volume harvested m3	# of Volume-Based TSLs** Active	*Volume-Based TSLs volume harvested m3
*1999/00	0	0	0	0
*2000/01	0	0	0	0
*2001/02	0	0	0	0
*2002/03	1	0	0	0
*2003/04	2	2,704	2	0
*2004/05	3	27,259	11	20,599
*2005/06	3	47,268	16	52,351

*current to November 28, 2006; as reported on Revenue and Woodflow reports; these volumes are not yet verified; volumes are before final reconciliation process
**the majority of the volume based TSLs are issued on the Weyerhaeuser Prince Albert and Weyerhaeuser Pasquia-Porcupine FMAs; a volume-based TSL refers to a type of tenure where the licence holder is allowed to harvest a specified volume over the term of the licence (two to ten years)


2004/2005 Actual Harvest Volumes (m3) by Licensee
Area TSLs
Volume TSLs
Meadow Lake OSB
Forest Products Permits
L&M Lumber
Mistik
Weyerhaeuser
Weyerhaeuser
Mistik
L&M Lumber
Meadow Lake OSB
Area TSLs
Volume TSLs
Forest Products Permits


Total Area Harvested by FMA Licensees each Year (does not include third party licensees)
30000
25000
20000
15000
10000
5000
0
Hectares
1999/00
2000/01
2001/02
2002/03
2003/04
2004/05
Operating Year
Total Area Harvested

Timber Processing Statistics

Number of Licences Issued for Crown Timber Processing Facilities

Type	Year 1999/00	Year 2000/01	Year 2001/02	Year 2002/03	Year 2003/04	Year 2004/05
Pulpwood	2	2	2	2	2	2
Post/peeler treatment	8	3	7	7	8	7
OSB	1	1	2	1	1	2
Sawmill	113	76	82	70	79	86
Portable Sawmill	3	2		1	2	
Log Builder	1			1	1	2
Dowel						1
Shingle	1					
Plywood	1	1	1	1	1	1
Chipper				1		
Fuelwood			3	1	2	
Total	**130**	**85**	**97**	**85**	**96**	**101**

Natural Disturbance Statistics

Moderate to Severe Defoliated Forest Areas & Treated Areas for Spruce Budworm in Hectares

	1999/00	2000/01	2001/02	2002/03	2003/04	2004/05
Infested Area	506,749	265,776	438,883	669,591	511,780	282,376
Treated Area	20,639	30,260	26,350	42,503	40,277	27,227

Fire Disturbance – Area Burned in Hectares

1999/00	2000/01	2001/02	2002/03		2003/04	2004/05
173,720	140,960	183,430	879,000	Intensive Protection Zone	77,821	847
				Limited Protection Zone	48,768	258,072

Saskatchewan Forest Fires ≥ 100 Hectares

Limited Protection Zone

Intensive Protection Zone

Legend

- 2005
- 2004
- 2003
- 2002
- 2001
- Zone

0 25 50 100 KM

Saskatchewan Environment

Forest Service

July 2006

Silviculture Statistics

Source: Industry statistics from forest company annual reports; government statistics from Saskatchewan Environment records

Number of Trees Planted (Government Backlog & Industry FMA Areas*)

	1999/00	2000/01	2001/02	2002/03	2003/04	2004/05
Gov	3,034,690	4,060,688	4,448,426	4,661,728	2,756,616	3,475,672
Industry	13,933,255	11,742,215	11,080,896	11,856,590	11,500,876	15,0994,430
Total Trees	17,051,585	15,909,201	15,590,979	16,518,318	14,257,492	18,575,102

Tree Species planted include: (wS) white spruce >75% of seedlings, (jP) jack pine, (bS) black spruce, (tA) poplar

Area in Hectares of Site Preparation (Government Backlog & Industry FMA Areas*)

	1999/00	2000/01	2001/02	2002/03	2003/04	2004/05
Gov	4,158	5,582	3,599	1,918	2,501	2,203
Industry	5,038	8,032	10,065	6,710	8,019	6,921
Total Site Prep.	10,969	13,614	13,664	8,628	10,520	9,124

Silviculture Surveys (Hectares) Conducted by Government & Industry FMA Areas*

	1999/00	2000/01	2001/02	2002/03	2003/04	2004/05
Industry FMA Area Establishment Surveys	21,167	15,865	7,586	17,503	11,877	15,694
Industry FMA Area Free To Grow Surveys	-	-	-	-	-	-
SE Free to Grow Surveys on NSR Backlog	0	0	0	96,506	0	0

*FMA totals do not include 3rd party areas

Stand Tending Activities Conducted by Government* and Industry FMA Areas**

	1999/00	2000/01	2001/02	2002/03	2003/04	2004/05
Government Fertilizing	0	0	0	0	0	0
Government Pruning	0	0	0	0	0	0
Government Herbicide	0	0	0	0	0	0
Government Brushing	0	1,080	540	1,830	2,847	2,766
Government Spacing	0	0	0	0	0	0
Industry FMA Area Fertilizing	0	0	0	0	0	0
Industry FMA Area Pruning	11.7	11.7	0	0	0	0
Industry FMA Area Herbicide	0	0	0	0	0	0
Industry FMA Area Brushing/Thinning	1,441.3	1,658	1,256	2,736	650	690
Industry FMA Area Spacing	0	0	0	0	0	0

* Government activities pertain to NSR backlog areas
**FMA totals do not include 3rd party areas

Grazing and Hay Production in the Provincial Forest

	1999/00	2000/01	2001/02	2002/03	2003/04	2004/05
# Grazing Licences	143	133	134	141	120	119
# of Livestock Head	7,299	6,687	6,720	6,654	6,110	6,541
# Haying Permits	67	43	68	104	92	59
Tonnes of Hay Cut	4,007	2,516	4,297	5,538	4,951	3,617

Provincial Government Forest Management Activities

Saskatchewan Forest Service Branch and Forest Management & Forest Protection Branch Revenues and Expenditures (In Thousands of Dollars)

Revenues	1999/00	2000/01	2001/02	2002/03	2003/04	2004/05
Crown dues	9,096	6,083	6,578	6,924	8,424	16,062
Forest Management Fees	784	1,117	162	318	201	410
Licenses and Permits	537	332	238	392	410	487
Penalties and Interest	51	10	35	60	45	467
Total Revenues	10,468	7,542	7,013	7,694	9,080	17,426
Expenditures	1999/00	2000/01	2001/02	2002/03	2003/04	2004/05
Forest Service Branch						
Inventory	1,416	1,738	2,265	2,257	2,467	3406
Silviculture	3,653	5,974	5,899	4,883	4,838	3,091
Operations*	756	1,195	1,368	1,044	1,176	2,302
Insects and Disease	2,113	2,544	2,624	2,189	2,257	1,747
Forest Practices and Accountability	-	-	-	-	-	483
General Admin	1,371	1,367	1,687	1,645	1,945	2,598
Fire Management and Forest Protection Branch	68,600	34,300	48,145	111,990	70,692	32,396
***Total Expenditures**	77,909	47,118	61,988	124,008	83,375	46,023

*numbers do not include Compliance and Field Services Branch forestry inspections and enforcement expenditures

Forestry Standards Development

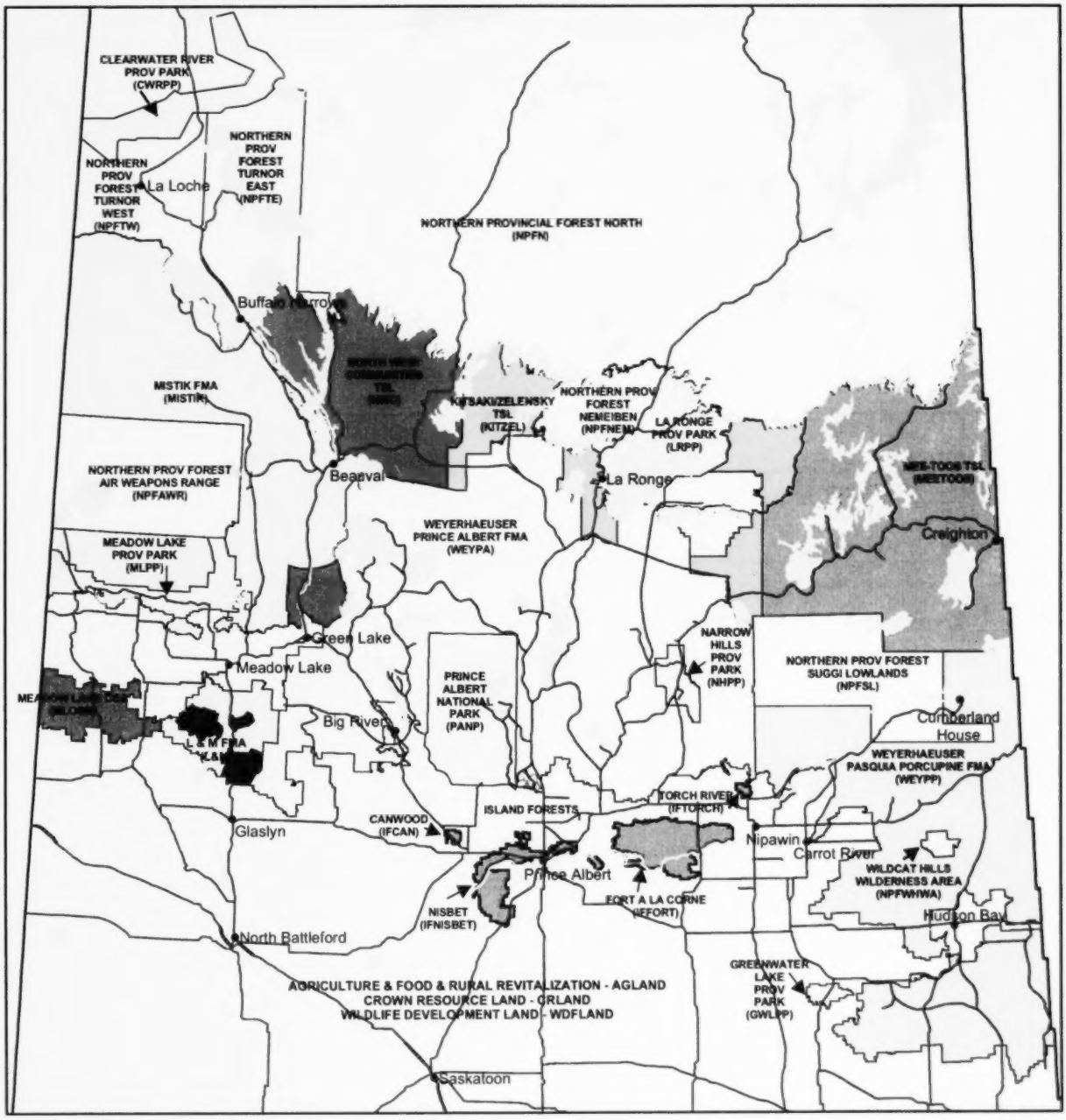
Approved Components of the Forest Resources Management Act Manuals

Manuals	Finalized Standards
Forest Planning Manual	Saskatchewan Forest Vegetation Inventory Standard July 2004
Forest Operations Manual	Regeneration Assessment Standard March 2004
Scaling Manual	In progress
Compliance Manual	In progress

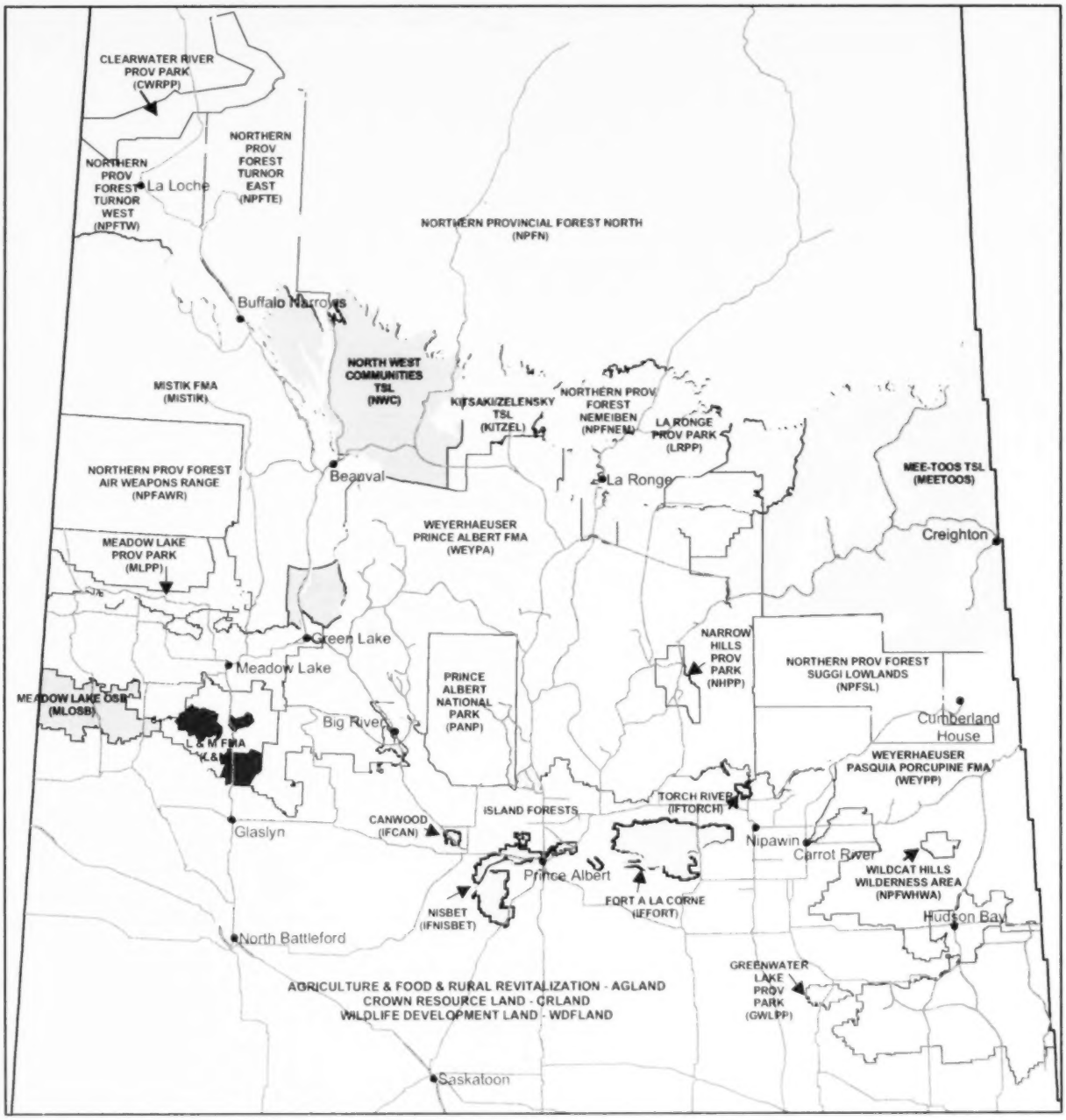
Interesting Facts

Provincial Forests Area Breakdown in Hectares (Provided by SE Geomatics Services Branch)	
Crown Provincial Forests	**Gross Area**
Commerical Forest	
Weyerhaeuser Prince Albert FMA	3,315,231.00
Weyerhaeuser Pasquia-Porcupine FMA	1,998,086.00
Mistik FMA	1,926,367.00
L&M FMA	72,576.00
Meadow Lake OSB Lands	238,540.00
Island Forests	
Nisbet Provincial Forest	83,479.00
Fort a La Corne P.F.	132,951.00
Torch River P. F.	4,371.00
Canwood P.F.	5,077.00
Total Island Forests	225,878.00
Mee-Toos Area Based TSL	1,672,211.00
Kitsaki-Zelensky Area Based TSL	595,553.00
North West Communities Area Based TSL	778,263.00
Turner East Supply Area	606,350.00
Turner West Supply Area	492,234.00
Suggi Lowlands Northern Provincial Forest	566,811.00
Nemeiben Northern Provincial Forest	218,144.00
Total Commercial Forest	**12,706,244.00**
Total Commerical Forest as % of total Provincial Forest	**37%**
Non-Commercial Northern Provincial Forest	**21,196,445.00**
Non-Commercial Northern Provincial Forest as % of Provincial Forest	**63%**
Total Provincial Forests (Commercial + Non-Commercial)	**33,902,689.00**
Total Provincial Forests as a % of the Province	**52%**
Provincial Parks (adjacent to Provincial Forest)	983,472.00
Total Crown Provincial Forests Land + Provincial Parks of the North	**34,886,161.00**
Total Area of the Province	**65,220,083.00**
% of the Provincial Forests Gross Area that is Water and Swamp	**13%**
% of the Provincial Forests Gross Area that is an Exclusion to the Provincial Forests*	**5%**
*Land Exclusions include: Indian Reserves, Private Land, Crown Reserve Lands, Municipal Land, Recreation Sites etc.	

Saskatchewan Crown Forest Areas



Saskatchewan Crown Forest Areas



Legend

Towns Roads Waterbodies

Saskatchewan Environment

Forest Service

N

March 2006

Boundaries are approximate.
This document is not intended for use as a legal representation of Agreements, License Areas, or Boundaries.

Forest Growing Stock by Species within the Managed Commercial Forest

Common Name	Botanical Name	Symbol	Volume of Forest Growing Stock by Species %
Softwood	**Coniferous**		**55 per cent**
White Spruce	Picea glauca (Moench) Voss	wS	13.17
Black Spruce	Picea mariana (Mill.) B.S.P	bS	19.20
Jackpine	Pinus banksiana Lamb.	jP	19.51
Lodgepole Pine	Pinus contorta var. latifolia Englem.	lP	0.12
Balsam Fir	Abies balsamea (L.) Mill	bF	1.96
Tamarack	Larix laricina (Du Roi) K. Koch	tL	0.84
Hardwoods	**Angiosperms**		**45 per cent**
Trembling Aspen (White Poplar)	Populus tremuloides Michx.	tA	36.78
Black (Balsam) Poplar	Populus balsamifera L.	bPo	4.72
White Birch	Betula papyrifera Marsh.	wB	3.53
Green (Red) Ash	Fraxinus pennsylvanica var. lanceolata (Borkh.) Sarg.	gA	0.01
Manitoba Maple	Acer negundo var. interius (Britt.) Sarg.	mM	0.11
White Elm	Ulmus Americana L.	wE	0.06

Part IV -- References

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Acronyms

AUM	Animal Unit Month
CB	Saskatchewan Environment Communications Branch
CCFM	Canadian Council of Forest Ministers
FBM	Foot Board Measure
FMEMP	Forest Management Effects Monitoring Program
FMA	Forest Management Agreement
FPP	Forest Products Permit
FMP	Forest Management Plan
FS	Forest Service
FSIN	Federation of Saskatchewan Indian Nations
GDP	Gross Domestic Product
ISO	International Organization of Standardization
NA	Not available
NSR	Not Sufficiently Regenerated
OSB	Oriented Strand Board
PA	Prince Albert
PP	Pasquia-Porcupine
SAF	Saskatchewan Agriculture & Food
SE	Saskatchewan Environment
SFM	Sustainable Forest Management
SFVI	Saskatchewan Forest Vegetation Inventory
TSL	Term Supply Licence

Glossary

Specific definitions used in this report, and their sources are listed below:

Aboriginal	Aboriginal peoples include Indian, Inuit and Métis People of Canada (as defined in the Constitution Act – section 35, 1982) (SE Forest Planning Manual, 2005)
Backlog Not Sufficiently Regenerated (NSR) Land	NSR is defined as area not meeting the regeneration standards. SE Backlog NSR land is defined as NSR area resulting from harvesting activity before 1995/96 in the Pasquia-Porcupine FMA and before 2002/03 in the Island Forests
Criterion	A category of conditions or processes, by which sustainable forest management may be assessed. A criterion is characterized by a set of indicators that are measured or assessed periodically to assess change. (SE Forest Planning Manual, 2005)
Crown Resource Land	Means all lands administered by the department other than parkland within the meaning of The Parks Act but does not include any Crown mineral or Crown mineral lands within the meaning of The Crown Minerals Act. (SE Forest Planning Manual, 2005)
Ecosystem	An inter-relating and dynamic system of animals, plants, soil, water and air connected by functional relationships and flows of matter and energy. (SE Forest Planning Manual, 2005)
First Nation	Although the term First Nation is widely used, no legal definition of it exists. Among its uses, the term "First Nations People" refer to the Indian people in Canada, both Status and Non-Status. Some Indian people also use the term First Nation to replace the word "band" in the name of their community. (Indian and Northern Affairs Canada, website)
Forest Management Effects Monitoring Program	The Provincial Forest Management Effects Monitoring Program is designed to monitor the response of forest ecosystems to both natural and man-caused disturbances. It is a long-term program at the Forest Service Branch, which will compare the responses of the forest ecosystems to these two forms of disturbances. Differences in the responses will be assessed and the results used to adapt forest management practices to better emulate the effects of natural disturbances
Forest Management Agreement (FMA)	Means an agreement entered into by the minister pursuant to The Forest Resources Management Act, where the term of the agreement is not exceed 20 years, with provisions setting out the rights of the licensee for the harvesting of forest products and the responsibilities of the licensee for the renewal of specified forest products. (The Forest Resources Management Act, 1999)
Forest Products Permit (FPP)	Means a permit granted by the minister pursuant to The Forest Resources Management Act conferring the right to harvest specified forest products for a year or less. (The Forest Resources Management Act, 1999)

Forest Service	The SE Forest Service is the branch within the department of Saskatchewan Environment that is responsible for the administration and management of forest resources on Crown lands in Saskatchewan. (SE Forest Planning Manual, 2005)
Forest Value(s)	A characteristic, component, or quality considered by an interested party to be important in the forest. (SE Forest Planning Manual, 2005)
Free to Grow (FTG)	A state or condition assigned to a sample unit (i.e. a tree, a group of trees, or a harvested area) as a result of its assessment against a set of regeneration standards that provide a reasonable assurance that the future forest conditions defined by the standards will be achieved. (SE Forest Planning Manual, 2005)
Indicator	An indicator is a variable that represents the state or condition of a specific objective and element and for which one or more targets are set. It is a quantitative or qualitative variable, which can be measured or described and which when observed periodically demonstrates trends. (SE Forest Planning Manual, 2005)
Intensive Protection Zone	A zone classification for forest fire management, which includes forested lands of high value and areas where a risk to human life exists. (National Forestry Database Program website)
Limited Protection Zone	A zone classification for forest fire management, which includes remote forested lands or other areas of low value where intensive forest protection cannot be justified economically. (National Forestry Database Program website)
Old Growth	A forest ecosystem or stand dominated by old trees that have originated naturally and in which the genetic, species and structural diversities have not been significantly changed by human activity. (SE Forest Planning Manual, 2005)
Provincial Forest	Any Crown resource land designated by the minister pursuant to section 12 of the Forest Resources Management Act. (SE Forest Planning Manual, 2005)
Silviculture	The theory and practice of controlling the establishment, composition, growth, and quality of forest stands to achieve the objectives of management (Canadian Forest Service, 1995)
Sustainable Forest Management (SFM)	Management "to maintain and enhance the long-term health of forest ecosystems, while providing ecological, economic, social, and cultural opportunities for the benefit of present and future generations". (SE Forest Planning Manual, 2005)
Term Supply Licence (TSL)	Means a licence granted by the minister pursuant of The Forest Resources Management Act conferring the right to harvest specified forest products for a set number of years. (The Forest Resources Management Act, 1999)

Part V – Your Comments

Your comments on this report are important to help us improve the content and presentation of future reports. Please send your feedback to:

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Content
Do you consider the indicators presented in the Part I of this report to be relevant to sustainable forest management in Saskatchewan?
Which of the indicators are you most interested in?
Are there some indicators that you feel should be added?
Presentation
Do you consider the report's format user-friendly?
Do you consider the report's quality of production adequate?
Use of the Report
Will you recommend the report to friends and or colleagues?
Do you intend to use the report information for any purpose beyond informing yourself?
Would you like to see other information? (If yes, provide an example)
Overall
What would be the most significant improvement we could make to the report?

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